

six days before death. The reparative process had proceeded favourably, and as strong a band of union as is usual at that period was formed of the new reparative material effused between the retracted ends. On slitting open this band, I found within it a clot of blood, such as must have come from a large vessel; and this clot was completely enclosed within the new material, not closely adherent to it, nor changed, as if towards organization, but rather decolorized, mottled, and so altered as clots are in apoplexy before absorption.

I believe that this case only showed in a very marked manner what usually happens with blood thus effused and not ejected; for it is quite common, after the division of tendons, to find new reparative material, if not containing distinct clots, yet blotched with the blood that was infiltrated in the tissue in which the reparative material is deposited: and even when the repair of a fracture was nearly perfect, I have still found traces of blood-corpuscles enclosed in the reparative material, and degenerating, as if in preparation for absorption.

Ejection and absorption are, doubtless, the usual means by which blood effused in injuries is disposed of; yet I feel nearly sure it may in some instances become organized and form part of the reparative material. The cases of manifest organization of blood already referred to leave no doubt of the possibility of this happening: its occurrence can no longer be set aside as a thing quite improbable. The only question is, whether the organization of blood effused in injuries has been seen. Now I think no one familiar with Hunter's works will lightly esteem any statement of his as to a matter of observation. He may have been sometimes deceived in thinking that he saw blood becoming organized in subcutaneous injuries (for subcutaneous granulations are sometimes very like partially decolorized clots); yet I believe he was more often right: for sometimes one finds clots of blood about the fractured ends of bones which have every appearance of being in process of organization. They do not look mottled, or rusty, or brownish, as extravasated blood does when it is degenerating, preparatory to its absorption; but they are uniformly decolorized to a pinkish yellow hue. They have less appearance of filamentous structure than recent clots have, and they are not grumous or friable, like old and degenerating ones, but have a peculiar toughness, compactness, and elasticity, like firm gelatine. When clots are found in this condition, I believe it is a sign that they were organizing, for this is the condition into which, commonly, the clot in a tied artery passes in its way to be fully organized; and (which is very characteristic) you may find clots in the track of wounded parts thus changing, as if towards organization, while those about them, and out of the way of the reparative process, are degenerating.

On the whole, then, I believe we may thus conclude concerning the part that blood, when it is extravasated, takes in the repair of injuries:—

1. It is neither necessary nor advantageous to any mode of healing.
2. A large clot, at all exposed to the air, irritates and is ejected.
3. In more favourable conditions, the effused blood becomes enclosed in the accumulating reparative material; and while this is organizing, the blood is absorbed; and—

Lastly, it is probable that the blood may be organized and form part of the reparative material; but, even in this case, it probably retards the healing of the injury.—*Ibid.*

32. *On the Alliances of Erysipelas.*—Dr. GULL read before the South London Medical Society (May 10th, 1849), a highly interesting and practically valuable paper on this subject.

Dr. Gull stated that in the year 1847, during the winter, his attention was first drawn to the complication of erysipelas with inflammation of the fauces. The disorder then prevailed to a great extent, and was very fatal; the same has shown itself during the present spring on two occasions, and particularly during the prevalence of easterly and north-easterly winds. The object of this communication is to point out the relation of several apparently different affections to erysipelas, and to discuss the general plan of treatment to be pursued.

To rest satisfied with the definition that erysipelas is an inflammatory affec-

tion of the skin, would be to remain in ignorance of its practical nature, for such has been the advance in our method of looking on things, that we have learned to regard the word inflammation as expressing a very variable state, oftentimes such as by no means warrants depletion nor so-called antiphlogistics. That erysipelas is of the nature of inflammation we cannot doubt; we can imitate its results by applying a blister to the skin; and when the integument is loose we get, during erysipelas, a large amount of cedematous effusion, and often the production of pus in the parts beneath, as in the eyelids. But erysipelas is a peculiar inflammation, and is not, I think, necessarily limited to the skin.

In Nov. 1847, Mr. Fisher, a dresser in the hospital, sent for me to his lodgings: I found him scarcely able to speak, and sitting up in bed, complaining of much difficulty of breathing and a sense of suffocation, especially on attempting to lie down in bed. On examining the fauces, I found the soft palate red and greatly cedematous, and so elongated as to hang down upon the posterior part of the tongue like a fleshy translucent flap, and necessitating a prone position of the head to prevent its obstructing the larynx. The tongue was covered with a white creamy fur; it was indented at the edges. The pulse was frequent, and the skin hot. The whole indisposition had been preceded by shivering and uneasiness: I ordered him a brisk purgative, and afterwards the roses and quinine. The cedema of the fauces soon subsided, but on the third day, the *mucous membrane of the nose became painful and swollen, particularly about the septum*: there was a great sense of stuffing; and, on the fourth day, the erysipelatous inflammation had passed over the exterior of the nose, and subsequently the whole head and face were involved. The case terminated well under the usual treatment of infusion of serpentaria and ammonia, with wine. On inquiry, I found that he had been dressing a case of Mr. Cooper's in Martha's ward, in which there had been precisely the same order of symptoms. There occurred in that ward, and in the hospital generally, about this time, many such cases.

Eliza Phipps, æt. 28, was admitted under Dr. Hughes, Jan. 13, 1848. A single woman, employed as a servant. A week before admission, after exposure to wet and cold, she was taken with shivering, sickness, and pain in the head and limbs. Two days afterwards her throat became sore, her feverishness continued, and an herpetic eruption broke out round the left angle of the mouth. On admission, her skin was hot and dry; the face flushed; the *mouth and tonsils much tumefied and injected*. Tenderness below the angle of the jaw; great difficulty of deglutition; pulse 90; tongue furred; bowels open: four leeches were applied to the throat, followed by a warm poultice, and the julepum acidi hydrochlorici administered.

Two days after admission, an abscess, which had formed about the tonsil, burst, and she seemed greatly relieved; but two days subsequently the throat became again more painful; the fauces were injected, and covered in part by dirty secretion. *A small red spot formed at the inner canthus of the left upper eye.* (ung. nit. faucib.; garg. acidi nitr.; quin. disulph. gr. iij, t. d.; pulv. opii, gr. ss, vesp.; empl. lytt.; vin. rub. ℥iij.) In the evening I saw her, and found that the redness and tumefaction of the inner canthus and lachrymal ducts of the morning had now extended over the eyelids, and were distinctly erysipelatous.

The following morning, the report is that she passed a restless night, was very delirious. Pulse 160; throat less swollen and painful. *Erysipelatous inflammation* has extended an inch around the left eye; the colour is bright, and the edge well defined. The right eye is beginning to be similarly affected, the disease beginning in the same manner, from the inner canthus. (Rep. med. am. vin. ad ℥x; warm water dressing to eyes.) Subsequently, the erysipelas extended down the left cheek. The right ear and meatus became involved, and from this a purulent discharge came. Typhoid symptoms increased; the pulse was rapid, and she died nine days from admission, about the sixteenth of her attack.

A young man was admitted under Dr. Addison, for dysentery and abscess of the liver: he was suddenly attacked with difficulty of swallowing and soreness of the throat; on the third day the eyes became closed from inflammatory cedema

of an erysipelatous character; the right eye was first affected, and from the point at which the disease began being at the inner canthus, about the lachrymal ducts, it seemed to be continued from the fauces. In a short time the forehead and nose became involved, but before the cheek was implicated, the right meatus auditorius was found inflamed, and the integuments of the ears erysipelatous; whilst a distinct layer of healthy skin, an inch in breadth, intervened between the erysipelas of the ear and that of the forehead and nose, showing two distinct extensions of the disease to the external integuments. Laryngitis supervened, and soon cut off the patient.

This case presented us with the disease, beginning in the fauces and extending to the face; through the lachrymal canal and the meatus auditorius; also downwards to the vocal cords and upper part of larynx, which, on a post-mortem examination, was found oedematous.

Three other cases of cynanche occurred in this ward within a few days subsequent to this, but none of them passed into erysipelas.

About the time of the occurrence of the first case here recorded, there happened in Stephen's ward, which is for surgical cases exclusively, several cases which seemed to point out clearly the alliances of erysipelas; first, the ordinary erysipelas of head and face occurred in several cases; and lying in adjacent beds, in the same division of the ward in which the erysipelas had occurred, were two men, neither of whom had taken any mercury or iodine; one of these became the subject of acute stomatitis, which was accompanied by red, spongy, and swollen gums, fullness and tenderness of the salivary glands, and a large secretion of saliva; presenting thus many of the appearances of severe salivation. The other had great swelling and fullness, with tenderness of the tongue. This form of glossitis I have seen on several occasions; it is sometimes so painful and distressing as to require scarification to reduce it; at least, I have seen this practiced, although the great vascularity of the organ, and the difficulty of stopping the hemorrhage, render the operation dangerous.

In one instance, I saw glossitis limited to the right side of the tongue; the fauces were inflamed, and there was considerable constitutional excitement.

From the occurrence of these cases of cynanche with common erysipelas,—from the fact that we can often trace the continuity of inflammation from the fauces to the face, through one or several of the passages by which the mucous membrane is continuous with the skin,—from the connection of these with occasional glossitis and stomatitis, and from the oedematous condition of the mucous membrane accompanying these affections, I cannot but think they are natural alliances to one common condition; and if erysipelas is used substantively to express the peculiar disease of the skin, these other affections of cynanche, stomatitis, and glossitis, and laryngitis, may fairly have the word employed adjectively, and be termed "*erysipelatous*."

Amongst the complications of erysipelas, or rather the extension of erysipelas itself, none are more formidable than such as implicate the larynx—no diseases are more insidious, and none more certainly fatal. It is by no means infrequent to meet with these cases during the prevalence of erysipelas, and their alliance to this disease is often clearly demonstrated. In the winter of 1847, and during the early part of this spring, I saw several. Amongst the cases of glossitis, stomatitis, and erysipelas, we had others in which the fatal termination was due to an extension of the disease to the larynx, often so insidious as to escape direct observation, until serious symptoms of dyspnoea came on. Nor can we wonder at the inexperienced being deceived in these cases; because, beginning as they do with cynanche, and this being so often a very simple affection, the irritation of the larynx is referred to the fauces only, and no serious apprehension is excited until the dyspnoea rapidly increasing calls for immediate aid.

A case illustrative of the truth of these remarks, occurred in one of the surgical wards of the hospital, in a man under the care of the late Mr. Morgan. Erysipelas and the like disorders were then prevailing, and this man complained of soreness of the throat; but his case elicited no particular observation, until, early on the morning of the third day, the dresser for the week, Mr. Richardson, was called to him about half past seven o'clock, and found him labouring for breath. He immediately sent for assistance, and procured the instruments

for tracheotomy; and, although but a short time intervened, and the operation was performed, the patient survived but a few minutes.

On examining the parts after death, the mucous membrane about the arytenoid cartilages and vocal chords was cedematous; here and there one of the large follicles about the fauces had suppurated; on the right side the mucous membrane was greatly injected, and when cut into, the submucous tissue was found to be infiltrated with yellow sero-purulent fluid. A regular gradation of changes could be traced around, until quite at the most distant parts; the submucous tissue was merely cedematous. The right inferior vocal chord was greatly cedematous, but translucent; the left was not perceptibly affected. The epiglottis was red and swollen.

The viscera of the abdomen were in good condition as far as the structure could be observed.

Mr. Travers, in his work on constitutional irritation, gives examples of affections of the throat during erysipelas. A woman had compound fracture of the patella. Suppuration in the knee-joint followed. Soon after this, an erysipelatous blush appeared near one elbow, and pus was distinguished in the subcutaneous cellular tissue. She went on thus for a few days, when she complained of soreness of the throat. A general redness was observed on the soft palate, from which it extended to the pharynx. The difficulty of swallowing augmented to a great degree, and difficulty of breathing followed. In this state, the poor woman died rather suddenly. The throat was not examined after death.

A gentleman, whilst intoxicated, was thrown from his horse, and received a lacerated wound of both legs, and a simple but severe fracture of one tibia into the knee-joint. Erysipelas of both legs followed, and incisions were required to evacuate the matter from the subcutaneous tissue. The patient was very low and exhausted, and erysipelas was still spreading up the thigh, when he suddenly complained of extreme sore throat. Only a general redness could be seen. In twenty-four hours after this he died, the dysphagia being complete. On examination of the throat, a diffused redness was found to be spread over the pharynx and palate, and to enter into the laryngeal cavity; there was some, but not much cedematous effusion into submucous tissue of pharynx and larynx.

Dr. Stevenson, of Arbroath, in the year 1826, publishes cases illustrating the contagious nature of erysipelas, and its connection with severe sore throat.

"The disease," he says, "commonly began with a red or purplish blush, more or less extensive, over the uvula and velum, accompanied with very little tumefaction, but with considerable pain in swallowing. In many cases, the disease ended here, but in a few cases it extended to the larynx, producing a state of respiration like idiopathic croup; in others, it extended to the pharynx and oesophagus."

Diffused suppuration through the cellular tissue of the throat is another dangerous and fatal ally of erysipelas; and I have seen it appear under two forms. It cut off two of the inmates of the lunatic house at Guy's in one day, in the winter of 1847, and the day previously one died of common erysipelas. The cellular tissue may be affected from the cynanche by direct extension, or from erysipelas of the head and face extending down the neck, and implicating the parts beneath. So far as I have seen, erysipelas is often fatal in this way. This affection of the throat is to be distinguished from the so-called malignant sore throat which occurs in scarlatina; they agree only in the seat of the disease, and their fatal tendency. There is yet another close alliance between erysipelas and puerperal peritonitis; this is in general admitted, and, during the prevalence of this fatal disease in our lying-in charity last year, I obtained and examined the uteri of three women who had died of peritonitis. In all, pus was detected in the veins of the uterus, but the part of the uterus at which it was found seemed to me a fact worthy of recording. In all three every part of the uterus was examined. First of all, particularly at the part to which the placenta had been attached, but in none did the veins corresponding to this part contain any pus, and the structure seemed entirely healthy, the openings in the sinuses being filled with healthy firm coagula; but in all three the *veins about the neck* had suppurated, and all the usual marks of inflammation, viz., redness, tume-

faction, &c., existed at this part. Although these three cases may have been but so many coincidences, yet it certainly is worthy of remark, that in all three the inflammation had its chief seat in the part *most liable to injury*; and in neither could it have had anything to do with the attachment or separation of the placenta.

The well-known tendency of puerperal peritonitis to spread from patient to patient, its prevalence during epidemics of erysipelas, and the frequent alternations of the two diseases where many persons are brought together, and I might also add, the tendency of both to attack persons similarly situated—thus, any injury to the surface, as in surgical operations during the prevalence of erysipelas, is most apt to form a locality for it; so, after labour, when the neck of the uterus has been stretched or bruised, as indeed it must always be during labour, an inflammation of its tissue may occur, which, like that I have described in the throat, may pass to deeper tissues, spread to the veins, and fatal complication is the result; or, if not fatal, local oedema, from coagulation of blood in the veins, and all the miseries of phlegmasia dolens.

It would be, perhaps, without practical value to discuss minutely the exact local pathology of erysipelas. That it generally terminates in vesication rather than in suppuration is due, I think, to the rapidity of the vascular changes, and the transitory nature of the disease. In many instances, it does pass into the suppurative condition, as when there is much loose cellular tissue under the skin, as about the eyelids, or, as we have seen about the lax tissue, at the upper part of the larynx.

That it is an inflammatory disorder, few will be disposed to deny; but I think as few will hence infer that we must treat it by depletion, antimony, &c. Inflammation is a condition which occurs in states of the system most widely different—as between simple pustular acne and violent typhoid small-pox; pustules result in both, and both are inflammations of the skin; but to say no more than this, would leave us far off from anything like appropriate treatment, which, indeed, can never be determined by classifying a disease, but by studying the state of the system in which it occurs.

I take it for proved, that erysipelas may be the result of contagion, as well as arise spontaneously from external and internal causes. It may occur in states of the body most dissimilar as regards vascular plethora; but, so far as I have seen, however various the general aspect, there is a want of tone in the nutrient system, and disorder of the secretive organs.

In a society constituted as this is, the question of treatment must be one of paramount interest. Men of great experience have maintained opposite plans of treatment in this disease; the depleting and antiphlogistic means being recommended by one side, tonics and support by the other. While I leave this discussion to the individual experience of the members, I may set down what is the plan of treatment pursued for the most part at Guy's. The contagious nature is admitted; and so soon, therefore, as a patient shows signs of erysipelas, he or she is removed from the general wards. A mild purgative is ordered, and if the patient be moderately young, and of fair powers, a neutral saline, and gentle nourishment; the local treatment being various, or none. The part is punctured, or flour or tepid gruel is applied.

Sometimes arg. nitr. or a solution of arg. nitr., in moderately strong nitric acid, is applied, and with variable benefit, sometimes so successfully as to limit the disease—oftener not. On one or two occasions, I have seen the parts painted with tinct. of iodine; but I do not think I have seen any good from its application. Nitrate of silver, or its solution in nitric acid, has seemed to me to act best when the erysipelas is about the trunk or the extremities.

In most cases, warm fomentations are not used. I think I have seen them do great harm when very warm, and very assiduously applied, especially in favouring the extension of the disease to surrounding parts, and to the skin beneath. It is many years since I saw a man bled, as part of the treatment of erysipelas. Very early in the disease, tonics, with ammonia, are administered, and in cases where there is doubt as to the degree to which these may be carried, we take an intermediate course, giving an effervescing mixture composed of carbonate of ammonia and lemon-juice, the ammonia being slightly in excess.

Wine in the middle and latter stages is freely administered, and sometimes from the beginning. The success of this plan is very great, even in the worst cases.

Whilst erysipelas is confined to the skin, all is easy; but when it implicates the throat, how are we to act? May we attempt to lessen the local action by leeches and poultices, whilst we at the same time give tonics and stimulants? Or, are we to change our plan entirely when these parts are implicated, and employ antimony and the like?

This is a question of immense importance, especially when we remember that the implication of these parts is the most frequent cause of death in this disease, although I believe it is often overlooked from its insidious approaches; the patient becoming dull and semi-comatose from pressure on the vessels of the neck, makes no complaint, and the cause of death is referred to the head, until the first incision through the integuments of the throat at the post-mortem elicits the exclamation—"What's all this?"

Hopeless as these cases too often are, I yet think it might be admissible to attempt to lessen the local action by the smallest amount of local depletion, employing at the same time the same remedies as from the nature of the case we should employ if the erysipelas were on the surface. I have, however, already extended this paper too far, and the subject of treatment will advantageously admit of discussion; so that, thanking you for your patience, I may await your opinions on this important subject.

In the discussion which followed the reading of this paper, Dr. Lever stated some interesting facts.

A medical friend, he said, now deceased, was engaged in the examination of the body of a woman who had died from puerperal fever, when he was called away to a case of labour. Before this was completed, his services were required at another; both mothers died of puerperal fever; one child died of erysipelas commencing at the navel. Both nurses died of erysipelas, as well as other members of their families; so that altogether, eleven or twelve deaths occurred from his friend's unfortunate attendance. Two pupils, who usually studied together, were sitting one on either side of the bed of a patient suffering from a very severe attack of erysipelas, taking notes. Both were summoned within a quarter of an hour, each to a case of labour. On the afternoon of the same day, each attended a second case; all four women died of puerperal fever; all the children of erysipelas; still, on strict inquiry, neither disease was found to prevail in the districts where these patients resided, nor was it raging among other patients of the charity. A third instance was this: A nurse, who had been in attendance on a man who had died from erysipelatosus sore throat, called in the afternoon one day to tell a lady whom she was engaged to attend in her approaching confinement, that she must decline such attendance, by the advice of her medical man. She sat in the house an hour or two, and partook of some tea. The lady was confined in the night, and died of puerperal fever. The nurse was attacked with erysipelas, and also died; and yet, with such numerous and accumulated facts, he was surprised to find many practitioners maintaining opinions quite opposite to these.

Dr. Lever would further remark that, in his opinion, a disease which he could not distinguish from puerperal fever might be produced by the medical attendant going in the same clothes from the dissecting-room, or a post-mortem, whatever might have been the fatal disease of the subject. He gave a remarkable case of the former—a case of sporadic puerperal fever, where the surgeon who had been at a post-mortem examination attended a lady in her confinement, and saw her no more; this case also terminated fatally. In conclusion, he would state that, in addition to topical measures, he thought he had seen advantage from the exhibition of opium and quinine from the commencement of the attack—one grain of the former and two of the latter every three or four hours. He approved of the tonic plan of treatment. He mentioned another instance of a medical man who had persevered in his attendance on midwifery cases until he lost twelve women.

Holding the strong opinions on the subject as he did, he could not regard such persons as *unfortunate, but highly criminal; for, instead of being messengers*

of mercy, and assuagers of anguish, they resembled the destroying angel; for, in every house they entered, they were marked by death and desolation.

Dr. P. Murphy said he had not the slightest doubt that erysipelas and puerperal fever were convertible diseases; he thought the medical man highly culpable who did not give up practice for some time when he had the misfortune to have a case of puerperal fever.

Mr. Ray said he had seen many cases of puerperal fever, and believed it was invariably conveyed by the nurse or medical attendant; he mentioned several cases in proof, and fully believed that it could be produced by other causes than that termed puerperal, as he himself thinks that in one case his patient suffered merely from his going direct to her from a post-mortem inspection.—*London Medical Gazette*, June, 1849.

33. *Medical and General Treatment of Local Disease in Preference to Operation.*—THOMAS HUNT, Esq., has written some interesting papers on this subject in the *Prov. Med. and Surg. Journ.* (May 2, 1849). In one of them he gives the following as his conclusions:—

“The extirpation of morbid growths may be said to be *indicated* (their position being convenient for operation): 1. Wherever the disease is clearly the result of local or mechanical irritation from some external source. 2. Whenever the tumour is neither painful, tender, nor progressive, the health being good. 3. Whenever it can be fairly demonstrated that the pain of irritation of the tumour being the primary and sole cause of disturbed health, its removal will be the less of two evils. 4. A tumour in the mamma, originally depending on disordered health, may, *after the health is restored*, become painful from the pressure of the dress, and thus the absorbent glands may be excited, and the uterine functions disturbed. Excision may be justifiable in such a case; but the proper time must be chosen, and great attention should be paid to the health subsequently.

“The extirpation of morbid growths may be said to be *contra-indicated*: 1. When failing health precedes or accompanies the appearance of local disease. 2. When the disease is advancing, the tumour sensibly growing, no local or mechanical cause of irritation being apparent. In this case, it is right to assume the existence of latent constitutional disease, and to treat the case medically, rather than surgically. 3. When there is a plurality of tumours. 4. When the disease reappears, whether soon or late after an operation for its removal.

“The reader will observe that these rules contain little reference to the condition of the absorbent glands connected with the tumour, although surgical writers of the highest eminence have generally pointed out this circumstance as the one grand distinction which indicates or interdicts excision. Swollen axillary glands have always been held to be a strong objection to the removal of a tumour in the breast; and, on the other hand, a healthy condition of these glands has been admitted as a proof that the system is not contaminated, and that, therefore, the disease may be extirpated by the knife. Against this doctrine (which appears to have been adopted, by surgeon after surgeon, from preceding writers, without much reflection), I must enter my most earnest protest. Nothing can be more fallacious in theory, or unhappy in its practical results. Nothing is more common than the enlargement of the axillary glands from inflammation of the fingers, as in whitlow, or the introduction of any irritating matter or animal poison into the fingers. Yet, who infers from this circumstance, that these glands are the seat of incurable disease? They become irritated and swollen: but the irritation and swelling subside spontaneously as soon as the exciting cause is removed. On the other hand, malignant disease may pervade the whole system, and become developed in the mamma or any other organ, and exist in the form of a tumour for months together, the health evidently giving way, while the absorbent glands remain unaffected. The conclusion is, that it is not always advantageous or safe to amputate when the absorbent glands are sound; nor, when they are swollen and tender, and inflamed, do they present any absolute proof that the whole system is contaminated. In those cases *where the question of excision can be entertained at all*, it is impossible to tell whether this secondary affection of the absorbent system be merely the